

CLAIMS

1. A color image forming apparatus in which on photosensitive drums or belts of n ($n \geq 2$) pieces corresponding to respective colors are formed
5 respective latent images by irradiation of laser beams comprising,

a semiconductor laser array of which laser beam emitting points are arranged m ($m \geq 2$) in the row direction thereof and n in the line direction thereof
10 as the same number of the photosensitive drums or belts;

a beam splitting means which splits the respective laser beams for every lines on the semiconductor laser array so that m laser beams emitted from one of the rows on the semiconductor laser array scan a same
15 photosensitive drum or belt among thereof; and

a beam deflection means which deflects in common n laser beams for every lines emitted from the semiconductor laser array and irradiates the same onto the respective photosensitive drums or belts,
20 wherein, the arrangement direction of m beam spots irradiated onto one of the photosensitive drums or belts is inclined by an angle α_2 with respect to the main scanning direction.
2. A color image forming apparatus in which on
25 photosensitive drums or belts of n ($n \geq 2$) pieces corresponding to respective colors are formed respective latent images by irradiation of laser beams

comprising,

a first semiconductor laser array and a second semiconductor laser array each of which laser beam emitting points are arranged m ($m \geq 2$) in the row direction thereof and $n/2$ in the line direction thereof as the half number of the photosensitive drums or belts;

5 a first beam splitting means which splits the respective laser beams for every lines on the semiconductor laser array so that m laser beams emitted from one of the rows on the first semiconductor laser array scan a same photosensitive drum or belt among thereof;

10 a second beam splitting means which splits the respective laser beams for every lines on the semiconductor laser array so that m laser beams emitted from one of the rows on the second semiconductor laser array scan a same photosensitive drum or belt among thereof; and

15 a beam deflection means which deflects at different faces thereof n laser beams for every lines emitted from the first semiconductor laser array and the second semiconductor laser array, and irradiates the same onto the respective photosensitive drums or belts,

20 wherein, the arrangement direction of m beam spots irradiated onto one of the photosensitive drums or belts is inclined by an angle α_2 with respect to the main scanning direction.

3. A color image forming apparatus in which on

photosensitive drums or belts of n ($n \geq 2$) pieces corresponding to respective colors are formed respective latent images by irradiation of laser beams comprising,

5 a semiconductor laser array of which laser beam emitting points are arranged m ($m \geq 2$) in the row direction thereof and $n/2$ in the line direction thereof as the half number of the photosensitive drums or belts;

10 a beam splitting means which splits the respective laser beams for every lines on the semiconductor laser array so that m laser beams emitted from one of the rows on the semiconductor laser array scan a same photosensitive drum or belt among thereof; and

15 a beam deflection means which deflects in common $n/2$ laser beams for every lines emitted from the semiconductor laser array and irradiates the same onto the respective photosensitive drums or belts,

20 wherein, the arrangement direction of m beam spots irradiated onto one of the photosensitive drums or belts is inclined by an angle α_2 with respect to the main scanning direction.

4. A color image forming apparatus according to claim 1, wherein the semiconductor laser array being inclined as a whole by an angle α_1 so that the arrangement direction of m beam spots irradiated on the photosensitive drums or belts is inclined by the angle α_2 ($\alpha_1 = \alpha_2$) with respect to the main scanning direction.

5. A color image forming apparatus according to
claim 2, wherein the semiconductor laser array being
inclined as a whole by an angle α_1 so that the
arrangement direction of m beam spots irradiated on the
5 photosensitive drums or belts is inclined by the angle
 α_2 ($\alpha_1=\alpha_2$) with respect to the main scanning direction.

6. A color image forming apparatus according to
claim 3, wherein the semiconductor laser array being
inclined as a whole by an angle α_1 so that the
10 arrangement direction of m beam spots irradiated on the
photosensitive drums or belts is inclined by the angle
 α_2 ($\alpha_1=\alpha_2$) with respect to the main scanning direction.

7. A color image forming apparatus according to
claim 1, wherein the alignment in the row direction of
15 the light emitting points being inclined with respect
to the alignment in the line direction by an angle ($90^\circ -$
 α_3) so that the arrangement direction of m beam spots
irradiated on the photosensitive drums or belts is
inclined by the angle α_2 ($90^\circ - \alpha_3 = \alpha_2$) with respect to
20 the main scanning direction.

8. A color image forming apparatus according to
claim 2, wherein the alignment in the row direction of
the light emitting points being inclined with respect
to the alignment in the line direction by an angle ($90^\circ -$
25 α_3) so that the arrangement direction of m beam spots
irradiated on the photosensitive drums or belts is
inclined by the angle α_2 ($90^\circ - \alpha_3 = \alpha_2$) with respect to

the main scanning direction.

9. A color image forming apparatus according to claim 3, wherein the alignment in the row direction of the light emitting points being inclined with respect
5 to the alignment in the line direction by an angle ($90^\circ - \alpha_3$) so that the arrangement direction of m beam spots irradiated on the photosensitive drums or belts is inclined by the angle α_2 ($90^\circ - \alpha_3 = \alpha_2$) with respect to the main scanning direction.